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## ABSTRACT

A set of lift pins defines a storage location for a substrate in a substrate processing chamber. Each lift pin has an actuating mechanism including a translating mechanism that translates vertical actuation into horizontal motion. The actuating mechanism may include a base, a mechanism adapted to raise and lower the base, and a lever pivotally mounted on the base. The lift pin may be fixedly mounted on the lever. A stop may be adjacent the base and adapted to engage the lever to pivot the lever as the base is lowered.